CLAIMS

Amend the claims as follows.

1. (Currently Amended) A method of resetting an electronic device comprising:

~~a)~~ separating software operations associated with layer two of an International Standardization Organization Open Systems Interconnect (ISO/OSI) reference model from other layers in said ISO/OSI reference model, wherein said electronic device is configured to implement ~~implementing~~ said software operations, and wherein a backup copy of said software operations is stored locally on said electronic device;

~~b)~~ resetting said software operations in said layer two of said electronic device using said backup copy of said software operations, wherein a layer two functionality associated with said software operations is temporarily unavailable during said software reset;

~~c)~~ maintaining continuity for a communication session between said electronic device and other electronic devices coupled together through a network during said software reset; and

~~d)~~ recovering execution of said layer two functionality associated with said software operations ~~at said layer two~~ before said continuity of said communication session is terminated.

2. (Currently Amended) The method of Claim 1, ~~wherein a)~~ further comprising ~~comprises~~:

~~a1)~~ separating a data plane and a control plane in said electronic device, wherein said data plane is ~~being~~ associated with said layer two, and wherein said control plane is ~~being~~ associated with layers above said layer two of said ISO/OSI reference model.

3. (Currently Amended) The method of Claim 1, ~~wherein c)~~ further comprising ~~comprises~~:

separating a data plane and a physical layer of said electronic device, wherein said data plane is associated with said layer two, and wherein said physical layer is associated with layer one of said ISO/OSI reference model; and

~~c1)~~ maintaining continuity of said communication session between said electronic device and said other electronic devices coupled together through said network at said layer one of said ISO/OSI reference model during said software reset~~; and~~

~~c2) maintaining continuity at layers above said second layer of said ISO/OSI reference model~~.

4. (Currently Amended) The method of Claim 1, wherein ~~comprises further comprises: b1) pre-loading new software implementing~~ said backup copy of said software operations is stored at ~~to~~ a first memory location of said electronic device,[[;]] and wherein said method further comprises:

~~b2)~~ loading a bootstrap code to a second memory location of said electronic device, wherein said bootstrap code is loaded in response to a request to reset said electronic device, wherein said bootstrap code is configured to load ~~for loading~~ said ~~new~~ backup copy of said software operations from said first memory location to a predetermined location of said electronic device, and wherein said backup copy of said software operations replaces said software operations previously residing at said predetermined location~~ storing existing software implementing said software operations~~.

5. (Currently Amended) The method of Claim 4, ~~wherein d)~~ further comprising ~~comprises~~:

~~d1)~~ executing said bootstrap code by moving a program counter of said electronic device to a first beginning instruction of said bootstrap code to overwrite said ~~existing~~ software operations at said predetermined location with said ~~new~~ backup copy of said software operations; and

~~d2)~~ executing said ~~new~~ backup copy of said software operations by moving said program counter to a second beginning instruction of said ~~new~~ backup copy of said software operations ~~to initialize said new software~~.

6. (Currently Amended) The method of Claim 1, ~~wherein b)~~ further comprising ~~comprises~~:

~~b1)~~ performing a minimal reset of hardware components associated with said layer two such that interruptions to an operating system of said electronic device are minimized.

7. (Original) The method of Claim 6, wherein at least one of said hardware components comprises a line card.

8. (Original) The method of Claim 1, wherein said network comprises the Internet.

9. (Original) The method of Claim 1, wherein said electronic device comprises a network device.

10. (Currently Amended) A method ~~of resetting an electronic device~~ comprising:

~~a)~~ initiating a communication between an electronic device and one or more devices in a network, wherein ~~separating~~ a data plane and a control plane in said electronic device are separated, wherein said data plane and said control plane are configured to control said ~~for controlling~~ communication between said electronic device and said one or more devices in said [[a]] network, and wherein said data plane is associated with layer two of an International Standardization Organization Open Systems Interconnect (ISO/OSI) reference model;

uploading a bootstrap code to said electronic device, wherein said bootstrap code is configured to load software operations for said electronic device;

~~b) resetting~~ loading said software operations in said data plane, wherein data plane functionality is temporarily disabled during said loading of said software operations;

~~c)~~ maintaining continuity in said communication at layer one of said ISO/OSI reference model during said loading of said software operations, wherein said data plane is separated from said layer one of said electronic device;

~~d)~~ maintaining continuity in said communication at layers above said layer two during said loading of said software operations; and

~~e)~~ recovering execution of said data plane functionality ~~software operations~~ before said continuity in said communication is terminated at said control plane.

11. (Currently Amended) The method of Claim 10, wherein ~~b)~~ further comprising ~~comprises~~:

~~b1)~~ pre-loading new software implementing said software operations to a first memory location of said electronic device, wherein said~~; and b2) loading a~~ bootstrap code is uploaded to a second memory location of said electronic device, and wherein said bootstrap code loads ~~for loading~~ said new software to a predetermined location storing existing software implementing said software operations.

12. (Currently Amended) The method of Claim 11, ~~wherein d)~~ further comprising ~~comprises~~:

~~d1)~~ moving a program counter of said electronic device to a first beginning instruction of said bootstrap code for executing said bootstrap code to overwrite said existing software at said predetermined location with said new software; and

~~d2)~~ executing said new software by moving said program counter to a second beginning instruction of said new software to initialize said new software.

13. (Currently Amended) The method of Claim 11, ~~wherein b1)~~ further comprising ~~comprises~~:

upgrading said software operations that are implemented within said new software.

14. (Currently Amended) The method of Claim 11, ~~wherein b1)~~ further comprising ~~comprises~~:

reloading said software operations that are implemented within said new software.

15. (Currently Amended) The method of Claim 10, ~~wherein b)~~ further comprising ~~comprises~~:

~~b1)~~ performing a minimal reset of hardware components associated with said data plane such that interruptions to an operating system of said electronic device are minimized.

16. (Currently Amended) The method of Claim 15, ~~wherein d)~~ further comprising ~~comprises~~:

resuming operations of said hardware components.

17. (Original) The method of Claim 10, wherein said electronic device comprises a network device.

Claims 18-26. Cancelled

27. (Currently Amended) A system ~~for resetting an electronic device~~ comprising:

means for separating software operations associated with layer two of an International Standardization Organization Open Systems Interconnect (ISO/OSI) reference model from other layers in said ISO/OSI reference model, wherein an ~~said~~ electronic device is configured to implement ~~implementing~~ said software operations;

means for storing layer two information associated with usage of said software operations;

means for loading ~~resetting~~ said software operations in said layer two of said electronic device, wherein said layer two is temporarily disabled during said loading of said software operations;

means for maintaining continuity for a communication session between said electronic device and other electronic devices coupled together through a network while said layer two is temporarily disabled;

means for restoring said layer two information associated with usage of said software operations; and

means for recovering execution of said software operations at said layer two before said continuity of said communication session is terminated.

28. (Original) The system of Claim 27, wherein said means for separating software operations further comprises:

means for separating a data plane and a control plane in said electronic device, said data plane being associated with said layer two, and said control plane being associated with layers above said layer two of said ISO/OSI reference model.

29. (Original) The system of Claim 27, wherein said means for maintaining continuity further comprises:

means for maintaining continuity at layer one of said ISO/OSI reference model; and

means for maintaining continuity at layers above said second layer of said ISO/OSI reference model.

30. (Currently Amended) The system of Claim 27, wherein said means for loading ~~resetting~~ said software operations further comprises:

means for pre-loading new software implementing said software operations to a first memory location of said electronic device; and

means for loading a bootstrap code to a second memory location of said electronic device, wherein said bootstrap code is configured to load ~~for loading~~ said new software to a predetermined location, and wherein said predetermined location is configured to store ~~storing~~ existing software implementing said software operations.

31. (Original) The system of Claim 30, wherein said means for recovering execution further comprises:

means for executing said bootstrap code by moving a program counter of said electronic device to a first beginning instruction of said bootstrap code to overwrite said existing software at said predetermined location with said new software; and

means for executing said new software by moving said program counter to a second beginning instruction of said new software to initialize said new software.

32. (Cancelled)

33. (Currently Amended) ~~The system of Claim 32,~~ A system for resetting an electronic device comprising:

means for separating software operations associated with layer two of an International Standardization Organization Open Systems Interconnect (ISO/OSI) reference model from other layers in said ISO/OSI reference model, said electronic device implementing said software operations;

means for resetting said software operations in said layer two of said electronic device;

means for maintaining continuity for a communication session between said electronic device and other electronic devices coupled together through a network;

means for recovering execution of said software operations at said layer two before said continuity of said communication session is terminated; and

means for performing a minimal reset of hardware components associated with said layer two such that interruptions to an operating system of said electronic device are minimized, wherein at least one of said hardware components comprises a line card.

34. (Original) The system of Claim 27, wherein said network comprises the Internet.

35. (Original) The system of Claim 27, wherein said electronic device comprises a network device.

36. (Currently Amended) A computer-readable medium having stored thereon ~~comprising~~ computer executable instructions that, if executed by a system, cause said system to perform ~~for performing~~ a method ~~of resetting an electronic device~~ comprising:

~~a)~~ separating software operations associated with layer two of an International Standardization Organization Open Systems Interconnect (ISO/OSI) reference model from other layers in said ISO/OSI reference model, wherein an ~~said~~ electronic device is configured to implement ~~implementing~~ said software operations;

~~b) resetting~~ loading said software operations in said layer two of said electronic device, wherein a layer two functionality associated with said software operations is temporarily unavailable during said loading of said software ;

~~c)~~ maintaining continuity for a communication session between said electronic device and other electronic devices coupled together through a network while said layer two functionality is unavailable; and

~~d)~~ recovering execution of said software operations at said layer two before said continuity of said communication session is terminated.

37. (Currently Amended) The computer-readable medium of Claim 36, wherein ~~a) in~~ said method further comprises:

~~a1)~~ separating a data plane and a control plane in said electronic device, wherein said data plane is ~~being~~ associated with said layer two, and wherein said control plane is ~~being~~ associated with layers above said layer two of said ISO/OSI reference model.

38. (Currently Amended) The computer-readable medium of Claim 36, wherein ~~c) in~~ said method further comprises:

~~c1)~~ maintaining continuity at layer one of said ISO/OSI reference model; and

~~c2)~~ maintaining continuity at layers above said second layer of said ISO/OSI reference model.

39. (Currently Amended) The computer-readable medium of Claim 36, wherein ~~b) in~~ said method further comprises:

~~b1)~~ pre-loading new software implementing said software operations to a first memory location of said electronic device; and

~~b2)~~ loading a bootstrap code to a second memory location of said electronic device, wherein said bootstrap code is configured to load ~~for loading~~ said new software to a predetermined location, and wherein said predetermined location is configured to store ~~storing~~ existing software implementing said software operations.

40. (Currently Amended) The computer-readable medium of Claim 39, wherein ~~d) in~~ said method further comprises:

~~d1)~~ executing said bootstrap code by moving a program counter of said electronic device to a first beginning instruction of said bootstrap code to overwrite said existing software at said predetermined location with said new software; and

~~d2)~~ executing said new software by moving said program counter to a second beginning instruction of said new software to initialize said new software.

41. (Currently Amended) The computer-readable medium of Claim 36, wherein ~~b) in~~ said method further comprises:

~~b1)~~ performing a minimal reset of hardware components associated with said layer two such that interruptions to an operating system of said electronic device are minimized.

42. (Original) The computer-readable medium of Claim 41, wherein at least one of said hardware components comprises a line card.

43. (Original) The computer-readable medium of Claim 36, wherein said network comprises the Internet.

44. (Original) The computer-readable medium of Claim 36, wherein said electronic device comprises a network device.

45. (New) The method of Claim 1, wherein said continuity of said communication session between said electronic device and said other electronic devices is maintained at ISO/OSI layers above said layer two during said software reset.

46. (New) The method of Claim 1, further comprising:

storing layer two information associated with usage of said software operations prior to resetting said software operations; and

restoring said layer two information associated with usage of said software operations after recovering execution of said layer two functionality.

47. (New) The method of Claim 10, wherein said bootstrap code is uploaded in response to a request to reset said electronic device, and wherein said software operations are preloaded on said electronic device prior to receiving said request to reset said electronic device.

48. (New) The method of Claim 10, wherein a backup copy of said software operations is stored on said electronic device, and wherein said bootstrap code loads said backup copy of said software operations from a first memory location of said electronic device to a second memory location of said electronic device.

49. (New) The system of Claim 27, wherein said software operations loaded to said electronic device comprise a backup copy of said software operations, and wherein said backup copy of said software operations reset said electronic device.

50. (New) The system of Claim 27, wherein said software operations loaded to said electronic device comprise a new version of said software operations, and wherein said new version of said software operations upgrade said electronic device.

51. (New) The system of Claim 33, wherein said line card comprises an Ethernet card, wherein an operation of said Ethernet card is interrupted, and wherein said continuity for said communication session between said electronic device and said other electronic devices is maintained while said operation of said Ethernet card is interrupted.

52. (New) The system of Claim 51, wherein said layer two is temporarily disabled during said loading of said software operations.

53. (New) The computer-readable medium of Claim 36, wherein said method further comprises:

storing layer two information associated with usage of said software operations prior to loading said software operations; and

restoring said layer two information associated with usage of said software operations after recovering execution of said layer two functionality.

54. (New) The computer-readable medium of Claim 36, wherein said software operations are loaded as part of loading said electronic device.